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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,041	10/24/2000	John Marlowe		9143

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John moss
2162 Astoria Circle Apartment 104
Herndon, VA 20170

EXAMINER
REIFSNYDER, DAVID A

ART UNIT	PAPER NUMBER
1723	4

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Please find below and/or attached an Office communication concerning this application or proceeding.

A5-4

Office Action Summary	Application No.	Applicant(s)	
	09/674,041	MARLOWE, JOHN	
	Examiner	Art Unit	
	David A Reifsnyder	1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 October 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,27-29 and 32* is/are rejected.

7)☒ Claim(s) *4-26,30 and 31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

Claims 4-26, 30, 31 and 32/24 or objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 4-26, 30, 31 and 32/24 have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 27-29 and 32/1 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation of "characterized" is normally interpreted as meaning "comprising"; however, since comprising is already recited in this claim, it is vague and indefinite as to what is meant by "characterized". Furthermore, it is unclear as to whether a Jepson type format is intended. (see C.F.R 1.75(e)) In addition, the recitation of "said material", "the magnetic flux fields", "the attractive flux fields", "the repulsive fields", "the respective plates", "the collection region", "the collection regions" and "the interior of the collection units" all lack antecedent basis. Furthermore, the recitation of "in which a plurality of collection units is disposed" is vague and indefinite

as to what the collection units is disposed in. (i.e. the collection units can not be disposed in the claimed inlet and outlet means) Furthermore, the recitation of "plates or plate arrays disposed either side of a plurality of magnets" does not make sense, especially since a magnet will have at least four sides. In addition, the recitations of "facing plates", "facing apertures" and "facing collection regions" are vague and indefinite as to what the "plates", "apertures" and "collection regions" face. Furthermore, the recitations of "facing plate portion", "facing portion" and "exposed facing plate portion" are vague and indefinite as to what a "facing plate portion", a "facing portion" and "exposed facing plate portion" is, as well as what the "plate portion", the "portion" and the "exposed plate portion" faces. In addition, the recitation of "**preferential** collection of magnetizable materials in the collection region" is vague and indefinite as to whether magnetizable materials are collected in the collection region or not; it is also vague and indefinite as to whether the "magnetizable materials" are the same as the previously claimed "magnetizable material". (i.e. if the "magnetizable materials" is the same as the previously clamed "magnetizable material" then the applicant should have claimed ---said magnetizable material---) Furthermore, the recitation of "the respective plates of adjacent collection units having like polarity are disposed adjacent to one another" can not be understood because the plurality of collection units where not only never claimed as being adjacent one another, it is not known as to what is meant by "respective plates".

Regarding claim 2; it is vague and indefinite as to how the instantly claimed "housing" is structurally related to the instantly claimed "plurality of collection units".

Furthermore, the recitation of "the interior of said housing" lacks antecedent basis. In addition, the recitation of "**if** the collection units are disposed in proximity to the interior of the housing" is vague and indefinite as to whether the collection units are disposed in proximity to the interior of said housing or not.

Regarding claim 3; it is vague and indefinite as to how the instantly claimed "housing" is structurally related to the instantly claimed "plurality of collection units". Furthermore, the recitation of "housing integral to a flow system" is vague and indefinite as to what is the "flow system". Also, the recitation of "permitting fluid flow therethrough, even at contaminant capacity" is vague and indefinite as to what is meant by "contaminant capacity", especially since claim 1 fails to disclose that the collected magnetizable material is a contaminant.

Regarding claim 27; the recitation of "said particles" lacks antecedent basis and should be changed to ---said magnetizable particles---. Furthermore the recitation of "fluid system" is vague and indefinite as to what a "fluid system" is (i.e. what does the word "system" after fluid mean?) Furthermore, the recitation of "attracting and retaining said particles in said regions of magnetic attraction" is vague and indefinite because the step of passing fluid through said regions or magnetic attraction was never claimed. In addition, it is vague and indefinite as to how "attracting and retaining said particles in said regions of magnetic attraction and repelling particles from said apertures and from between adjacent collection units" further enhances "magnetic flux lines" within the "collection units".

Regarding claim 28; it is vague and indefinite as to where the instantly claimed "debris" came from. (i.e. if "debris" is actually the magnetizable particles of claim 27, the applicant should change "debris" to ---said magnetizable particles---)

Regarding claim 29; the recitation of "blowing off particles" is vague and indefinite as to where the instantly claimed "particles" came from. (i.e. if "particles" is actually the magnetizable particles , the applicant should change "particles" to ---said magnetizable particles---) Furthermore, the recitation of "particles collected, in an undismantled collection unit assembly" is vague and indefinite as to how "particles" can be collected in an "undismantled collection unit assembly". In addition, the recitation of "collection unit assembly" is vague and indefinite, because while a "collection unit" was claimed a "collection unit assembly" was not ever claimed. One other thing, the recitation of "blowing off particles collected, in an undismantled collection unit assembly, with an air line" is vague an indefinite as to how an "air line" blows off particles. (i.e. air from an "air line" blows off particles not the "air line".)

Regarding claim 32/1; the recitations of "the alarm", "the quantity and/or type", "the presence", "the type or quantity", and "the fluid system" (twice) all lack antecedent basis. Furthermore, the recitation of "A method form monitoring the debris collected" is vague and indefinite as to where the "debris" is collected ; furthermore, unless the debris is magnetizable it cannot be collected using the apparatus of claim 1. Furthermore, the recitation of "particles collected between facing plate portions" is vague and indefinite as to where the instantly claimed "particles" came from. Furthermore, the recitation of "facing plate portions" is vague and indefinite as to what is

"facing plate portions". In addition, the recitation of "monitoring the type or quantity of material present" and "setting off the alarm if material quantity rises" is vague and indefinite as to where the "material" came from. Since "debris", "particles" and "material" is claimed in this claim it is impossible to determine what is being monitored. Furthermore, it is vague and indefinite as to how the material is monitored. In addition, if the "material", "debris" and "particles" are one and the same, then it is redundant to claim that the material is monitored because it was already claimed that the particles are monitored by detecting the presence of the particles. In addition, the recitation of "means for the fluid system" is vague and indefinite as to what defines "means".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Frei.

Regarding claims 1-3, 27 and 28; Frei discloses a magnetic filtering system for filtering magnetizable particles from a fluid in which said material is in suspension comprising an inlet means (3); an outlet means (4); a non-magnetic housing (1) in which a plurality of collection units (figs. 1-3) is disposed, each collection unit comprising a magnet 9 having two faces of opposite magnetic polarity and a pair of metal plates (8),

one of the metal plates is disposed on one of the magnet faces and the other metal plate being disposed on the other of the magnet faces, so that the plates have opposing polarity with faces which face one another, the plate faces extend beyond an outer perimeter of the magnet faces (fig. 3), each of the plate faces have an outer portion which has apertures (22) and a inner portion which does not have apertures, the outer portion with apertures defining a region of magnetic repulsion and the inner portion without apertures defining a region of magnetic attraction; wherein adjacent collection units share plates and have like polarity (fig. 1). Furthermore, Frei dismantles and cleans his filtering system. (col. 2, lines 9-16)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frei.

Regarding claim 2; while it is believed that it is inherent that Frei's housing is non-magnetic, it would have been at least obvious to one having ordinary skill in the art at the time of the invention that Frei's housing be non-magnetic since there are plenty of known materials that are used for making housing's for filter's which are non-magnetic, and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frei in view of Garaschenko et al.

Regarding claim 29; Frei discloses the invention as discussed above, except for cleaning his magnetic filtering system with air. Garaschenko et al. discloses at column 14, lines 62-64 that it is well known to clean a magnetic filtering system with air. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have cleaned Frei's magnetic filtering system with air as taught by Garaschenko et al. since they both disclose magnetic filtering and Frei already teaches that his magnetic filtering system needs periodic cleaning.

Claim 32/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frei in view of Taliaferro.

Regarding claim 32/1; Frei discloses the invention as discussed above, except for monitoring the amount of magnetic particles caught in his filtering system and automatically shutting down his system when a predetermined amount of magnetic particles is reached. Taliaferro discloses at column 3, lines 3-31 a magnetic filtering

system including a monitoring means for detecting when a predetermined amount of magnetic particles are caught in his system, and alerting a worker so that worker may shut down the system. Furthermore, regarding the instantly claimed automatically shutting down of the system; it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. In re Venner, 120 USPQ 192.

Claims 1-3, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/04873 in view of Frei.

Regarding claims 1-3, 27 and 28; WO 97/04873 discloses a magnetic collection unit (figs. 1 and 2) comprising an annular magnet (2) having two faces of opposite magnetic polarity and a pair of metal plates (5, 6) one of the metal plates is disposed on one of the magnet faces and the other metal plate being disposed on the other of the magnet faces, so that the plates have opposing polarity with faces which face one another, the plate faces extend beyond an outer perimeter of the magnet faces (figs 1 and 2), each of the plate faces have an outer portion which has slot apertures 15 and a inner portion which does not have slot apertures, the outer portion with apertures defining a region of magnetic repulsion and the inner portion without apertures defining a region of magnetic attraction. Regarding claims 1-3, 27 and 28; WO 97/04873 fails to disclose that his magnetic collection unit is duplicated and connected together as a plurality of magnetic collection units. Regarding claims 1-3, 27 and 28: Frei discloses that it is common to duplicate a magnetic collection unit, connect the magnetic collection unit together and place the plurality of units into a housing. (see the 102 rejection using

Frei above) It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have turned WO 97/04873's magnetic collection unit into a plurality of magnetic collection units in a housing as taught by Frei because a plurality of magnetic collection units would work better than one. Furthermore, it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/04873 in view of Frei as applied above, and further in view of Garaschenko et al.

Regarding claim 29; WO 97/04873 in view of Frei suggests the invention as discussed above, except for cleaning his magnetic filtering system with air. Garaschenko et al. discloses at column 14, lines 62-64 that it is well known to clean a magnetic filtering system with air. It is considered that it would have been obvious to one having ordinary skill in the art at the time of the invention to have cleaned Frei's magnetic filtering system with air as taught by Garaschenko et al. since they both disclose magnetic filtering and Frei already teaches that his magnetic filtering system needs periodic cleaning.

Claim 32/1 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 97/04873 in view of Frei as applied above, and further in view of Taliaferro. Regarding claim 32/1; WO 97/04873 in view of Frei suggests the invention as discussed above, , except for monitoring the amount of magnetic particles caught in his filtering system and automatically shutting down his system when a predetermined amount of magnetic particles is reached. Taliaferro discloses at column 3, lines 3-31 a magnetic

filtering system including a monitoring means for detecting when a predetermined amount of magnetic particles are caught in his system, and alerting a worker so that worker may shut down the system. Furthermore, regarding the instantly claimed automatically shutting down of the system; it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. In re Venner, 120 USPQ 192.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Reifsnyder whose telephone number is 1-703-308-0456. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M Walker can be reached on 1-703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 1-703-872-9310 for regular communications and 1-703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 1-703-308-3601.

David A Reifsnyder
Primary Examiner
Art Unit 1723

DAR
June 27, 2002